



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/589,930

05/23/2007

Patrick Morvan

PF040025

3752

24498 7590 03/29/2010

Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER

FRY, MATTHEW A

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

03/29/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,930	Applicant(s) MORVAN ET AL.	
	Examiner MATTHEW A. FRY	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/18/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. Specifically pages 1 and 7 discuss US 6,476,785 and FR 2,841,366 which have not been listed in an IDS.

Claim Objections

2. Claim 1 is objected to because of the following informalities: "the video information item" lacks antecedent basis in the claim. Appropriate correction is required. Examiner recommends omitting the word "item" from the claim.
3. Claim 7 is objected to because of the following informalities: the limitation "the column line" lacks antecedent basis in the claim.

Claim Rejections - 35 USC § 112

4. Claim1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2629

5. Claim 1 recites both video information and the video information item. It is unclear how they differ.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US 2004/0041768) in view of well known art.

8. In regards to claim 1, Chen discloses an image display device comprising: a valve (see figure 4) of elements (411) arranged in rows and columns, each of said elements comprising a liquid crystal (403) one of whose electrodes, called the mirror electrode (401), is controlled by drive means so as to display video information relating to at least one image (see ¶ 40), wherein said drive means consist in: for each element (411) of the valve, a specific drive means (Taw11, Cs A11, Tad11) coupled to the mirror electrode (401) of the liquid crystal of said element and intended to store the specific value associated with the video information item to be displayed by said element and to apply it to the mirror electrode of the liquid crystal of said element and for each group of at least two elements of the valve, a common drive means (Tbw11, Cs B11, Tbd11, etc) coupled to each element of said group and intended to store said common value associated with the video information item to be displayed by said elements of the group

Art Unit: 2629

and to apply it to the mirror electrode of the liquid crystals of the elements of said group, the specific drive means and the common drive means that are coupled to one and the same group of elements controlling the liquid crystals of the elements of the group in such a way as to alternately display the specific values and the common value of the video information relating to the elements of the group for an image (see figures 4 and 5).

Chen does not explicitly disclose a means for coding, for each image, the video information intended to be displayed, however Data drivers are well known in the art, therefore it would have been obvious to one of ordinary skill in the art to include a data driver to code video data so that the display may function. Chen does not explicitly disclose a common value shared by a group of at least two adjacent elements of the valve and a specific value.

It is well known in the art that while displaying an image, adjacent pixels can display the same value grayscale (for example a blank screen) and so it would have been obvious to one of ordinary skill in the art that four adjacent pixels, in Chen's display, can display the same value during a single field, and thus store a common value in their respective driving means (Cs B11, Cs B12, Cs B21, Cs B22) while storing individual specific values in (Cs A11, Cs A12, Cs A21, Cs A22).

9. In regards to claim 2, Chen discloses the display device according to claim 1, wherein it is able to process video information relating to at least two colours transmitted sequentially, and in that the specific drive means and the common drive means that are coupled to one and the same group of elements control the liquid crystals of the

Art Unit: 2629

elements of the group in such a way as to alternately display the specific values of the video information relating to a colour and the common values of the video information relating to said colour or to another colour (see ¶ 38 and figure 5).

10. In regards to claim 3, Chen discloses a device according to claim 2, wherein it furthermore comprises: a light source (see ¶ 38) for producing colored light and illuminating said valve of elements, said valve reflecting or allowing through a quantity of light as a function of the specific and common values that are transmitted to it by the coding means (see ¶ 34), and said light source being synchronized with the coding means so that, when specific or common values relating to a colour are applied to the mirror electrodes of the liquid crystals of the valve, the colored light source corresponding to said colour lights (see ¶ 38 and figure 5). Chen does not explicitly disclose a color wheel. However, color wheels are a well known method of providing colored light and therefor it would have been obvious to one of ordinary skill in the art to interpose a color wheel between a white light source and a valve, said wheel comprising a colour segment for at least two colours wherein the color segments are synchronized with the grayscale values sent to the valve. This can be evidence by Richards (US 2004/0155856) figures 1 and ¶ 23-24 and 33.

11. In regards to claim 4, Chen discloses a device according to claim 1, wherein the adjacent elements (pixels containing Cs A11, Cs A21) of said group belong to consecutive rows and to a column of elements of the valve (see figure 4).

12. In regards to claim 5, Chen discloses a device according to claim 1, wherein the adjacent elements of said group (pixels containing Cs A11, Cs A12, Cs A21, Cs A22)

Art Unit: 2629

belong to consecutive rows and to consecutive columns of elements of the valve (see figure 4).

13. In regards to claim 6, Chen discloses the device according to claim 1, wherein the specific drive means of an element comprises: a first storage capacitor (Cs A11) for storing the specific values present on a column line (CH1) of the valve and intended for said element, a first switch (Taw11) for connecting the column line to a first end of said first storage capacitor, the other end being connected to a fixed potential, and a second switch (Tad11) for connecting the first end of the first storage capacitor to the mirror electrode of the liquid crystal of the element (see figure 4).

14. In regards to claim 7, Chen discloses a device according claim 1, wherein the common drive means of a group of elements of the valve comprises: a second storage capacitor (Cs B11) for storing the common value present on the column line of the valve and intended for said group, a third switch (TAW11) for connecting the column line to a first end of the second storage capacitor (Cs B11), the other end being connected to a fixed potential, and fourth switches (DB) for connecting the first end of the second storage capacitor to the mirror electrodes (401) of the liquid crystals of the elements of the group (see figure 4).

15. In regards to claim 8, Chen discloses the device according claim 1, wherein the groups of elements comprise two elements pixels containing (Cs A11, Cs A21) (see figure 4).

Art Unit: 2629

16. In regards to claim 9, Chen discloses the device according to claim1 wherein the groups of elements comprise four elements (pixels containing Cs A11, Cs A12, Cs A21, Cs A22) (see figure 4).

Examiner's Note

17. The Examiner would recommend that, in order to overcome the current grounds of rejection, the art listed below and to further prosecution, the Applicant amend Independent claim 1 to include the limitations of both claims 6 and 7 and to either describe the relationship between the video information, the specific value and the common value or describe figure 5 with more detail.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kodate (US 6,933,910), Nakamura (US 6,965,365), Mourey (US 5,333,004), Lebrun (US 2007/0252780).

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW A. FRY whose telephone number is (571) 270-7355. The examiner can normally be reached on Monday thru Friday, 8:00 AM to 5:00 PM, alternate Fridays, EST.

Art Unit: 2629

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629

/MATTHEW A FRY/
Examiner, Art Unit 2629